

Doc code :IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (08-08)

Approved for use through 09/30/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10589449
Filing Date	2007-04-27
First Named Inventor	Thomas Tuschl et al.
Art Unit	1635
Examiner Name	N/A
Attorney Docket Number	1119-10 CON/PCT/US

**U.S.PATENTS**

Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	7217807	B2	2007-05-15	Bentwich	

If you wish to add additional U.S. Patent citation information please click the Add button.

**U.S.PATENT APPLICATION PUBLICATIONS**

Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20060257851		2006-11-16	Bentwich	
	2	20070042381		2007-02-22	Bentwich et al.	
	3	20070039072	A1	2007-02-15	Khvorova et al.	
	4	20030108923	A1	2003-06-12	Tuschl et al.	
	5	20070039072		2007-02-01	Khvorova et al.	

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number		10589449
Filing Date		2007-04-27
First Named Inventor	Thomas Tuschl et al.	
Art Unit	1635	
Examiner Name	N/A	
Attorney Docket Number	1119-10 CON/PCT/US	

	6	20060166910	A1	2006-07-27	Tuschl et al.	
	7	20080188428	A1	2008-08-07	Bentwich	

If you wish to add additional U.S. Published Application citation information please click the Add button.

**FOREIGN PATENT DOCUMENTS**

Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> ;	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1	WO2004048511	WO	A2	2004-06-10	Bentwich		<input type="checkbox"/>
	2	WO2004007718	WO	A2	2004-01-22	Tuschl et al.		<input type="checkbox"/>
	3	WO03029459	WO	A2	2003-04-10	Tuschl et al.		<input type="checkbox"/>
	4	WO2004044123	WO	A2	2004-05-27	Bentwich		<input type="checkbox"/>
	5							<input type="checkbox"/>
	6							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

**NON-PATENT LITERATURE DOCUMENTS**



**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10589449
Filing Date	2007-04-27
First Named Inventor	Thomas Tuschl et al.
Art Unit	1635
Examiner Name	N/A
Attorney Docket Number	1119-10 CON/PCT/US

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1	Avavin et al., "The Small RNA Profile During Drosophila Melanogaster Development", Developmental Cell, Vol. 5, p. 337-350 (2003).	<input type="checkbox"/>
	2	Beigelman et al., "Chemical Modification of Hammerhead Ribozymes", The Journal of Biological Chemistry, Vol. 270, No. 43, P. 25702-25708 (1995).	<input type="checkbox"/>
	3	Liang et al., "Inhibitor RNA Blocks the Protein Translation Mediated by Hepatitis C Virus Internal Ribosome Entry Site in Vivo", World J. Gastroenterol, 10(5), p. 664-667 (2004).	<input type="checkbox"/>
	4	Amarzguioui, Mohammed, et al., "Tolerance for mutations and chemical modifications in a siRNA", Nucleic Acids Research 2003, 31(2):589-595.	<input type="checkbox"/>
	5	Bartel, David P., "MicroRNAs: Genomics, Biogenesis, Mechanism, and Function", Cell 2004, 116:281-297.	<input type="checkbox"/>
	6	Elbashir, Sayda M., et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells", Nature 2001, 411:494-498.	<input type="checkbox"/>
	7	Holen, Torgeir, et al., "Positional effects of short interfering RNAs targeting the human coagulation trigger Tissue Factor", Nucleic Acids Research 2002, 30(8):1757-1766.	<input type="checkbox"/>
	8	Holen, Torgeir, et al., "Similar behaviour of single-strand and double-strand siRNAs suggests they act through a common RNAi pathway", Nucleic Acids Research 2003, 31(9):2401-2407.	<input type="checkbox"/>
	9	Howard, Ken, "Unlocking the money-making potential of RNAi", Nature Biotechnology 2003, 21(12):1441-1446.	<input type="checkbox"/>
	10	Kurreck, Jens, "Antisense technologies Improvement through novel chemical modifications", Eur. J. Biochem. 2003, 270:1628-1644.	<input type="checkbox"/>

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		10589449
	Filing Date		2007-04-27
	First Named Inventor	Thomas Tuschl et al.	
	Art Unit		1635
	Examiner Name	N/A	
	Attorney Docket Number		1119-10 CON/PCT/US

11	Meister, Gunter, et al., "Sequence-specific inhibition of microRNA- and siRNA-induced RNA silencing", RNA 2004, 10:544-550.	<input type="checkbox"/>
12	Nelson, Peter, et al., "The microRNA world: small is mighty", TRENDS in Biochemical Sciences 2003, 28(10):534-540.	<input type="checkbox"/>
13	Database EMBL (Online), 'Homo Sapiens Genomic Sequence Surrounding NotI site, clone NR3-B07C', XP002451881 retrieved from EBI accession no. EMBL: AJ332626; 21/22 residues match SEQ ID NO: 1; October 2001, abstract.	<input type="checkbox"/>
14	Database EMBL (Online), 'NISC_js08a05.w1 Soares NMBP1 Mus Musculus cDNA clone Image: 4314537 5', mRNA sequence", XP002451882 retrieved from EBI accession no. EMBL: CB057718; 22/22 residues match SEQ ID NO: 3; January 2003, abstract.	<input type="checkbox"/>
15	Database EMBL (Online), CH4#001_G02T7 Canine Heart Normalized CDNA Library in pBluescript Canis familiaris CDNA clone CH4#001_G02 5', mRNA sequence." XP002451883 retrieved from EBI accession no. EMBL: BU751380; 22/22 residues match SEQ ID NO: 4; October 2002, abstract.	<input type="checkbox"/>
16	Berezikov et al., "Phylogenetic Shadowing and Computational Identification of Human MicroRNA Genes", Cell, Vol. 120, pp. 21-24 (2005).	<input type="checkbox"/>
17	Seitz, et al., "A Large Imprinted MicroRNA Gene Cluster at the Mouse Elkl-Gtl2 Domain", Genome Research, pp2. 1-8 (2004).	<input type="checkbox"/>
18	Xie et al., "Systematic Discovery of Regulatory Motifs in Human Promoters and 3' UTR's by Comparison of Several Mammals", Nature, pp. 1-8 (2005).	<input type="checkbox"/>
19	Analysis and accompanying remarks by Rosetta Genomics of the sequences presented in Table A2 of the specification of the instant application (June 28, 2007).	<input type="checkbox"/>
20	Table of information provided by Rosetta regarding the applications submitted in IDS dated July 12, 2007 (June 28, 2007).	<input type="checkbox"/>
21	Analysis by Rosetta of the sequences of Table A2 compared to those disclosed in Rosetta's patent applications (June 28, 2007).	<input type="checkbox"/>

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10589449
Filing Date	2007-04-27
First Named Inventor	Thomas Tuschl et al.
Art Unit	1635
Examiner Name	N/A
Attorney Docket Number	1119-10 CON/PCT/US

22	AC146999, Murphy et al. October 31, 2003, P. 1-67.	<input type="checkbox"/>
23	Murphy et al., "Coding Potential of Laboratory and Clinical Strains of Human Cytomegalovirus", PNAS, Vol. 100, No. 25, p. 14976-14981 (2003).	<input type="checkbox"/>
24	Taliansky et al., "An Umbraviral Protein, Involved in Long-Distance RNA Movement, Binds Viral RNA and Forms Unique, Protective Ribonucleoprotein Complexes", Journal of Virology, Vol. 77, No. 5, p. 3031-3040 (2003).	<input type="checkbox"/>
25	Paddison et al., "Short Hairpin RNAs (shRNAs) Induce Sequence-Specific Silencing in Mammalian Cells", Genes & Development, 16:948-958 (2002).	<input type="checkbox"/>
26	Wiebusch et al., "Inhibition of Human Cytomegalovirus Replication by Small Interfering RNAs", Journal of General Virology, 85, p. 179-184 (2004).	<input type="checkbox"/>
27	Vanitharani et al., "Short Interfering RNA-Mediated Interference of Gene Expression and Viral DNA Accumulation in Cultured Plant Cells", PNAS, Vol. 100, No. 16, p.9632-9636 (2003).	<input type="checkbox"/>
28	Pfützner et al., "Isolation and Characterization of cDNA Clones Corresponding to Transcripts from the BamHI H and F Regions of the Epstein-Barr Virus Genome", Journal of Virology, Vol. 61, No. 9, p. 2902-2909 (1987).	<input type="checkbox"/>
29	Pfeffer et al., "Identification of Virus-Encoded microRNAs", Science, Vol. 304, p. 734-736 (2004).	<input type="checkbox"/>
30	Pfeffer et al., "Identification of microRNAs of the Herpesvirus Family", Nature Methods, Published Online DOI:10.1038/NMETH746, p. 1-8	<input type="checkbox"/>
31	Zeng, et al., "MicroRNAs and Small Interfering RNAs Can Inhibit mRNA Expression by Similar Mechanisms", PNAS, Vol. 100, No. 17, p. 9779-9784 (2003).	<input type="checkbox"/>
32		<input type="checkbox"/>

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	10589449
	Filing Date	2007-04-27
	First Named Inventor	Thomas Tuschl et al.
	Art Unit	1635
	Examiner Name	N/A
Attorney Docket Number		1119-10 CON/PCT/US

If you wish to add additional non-patent literature document citation information please click the Add button			
<b>EXAMINER SIGNATURE</b>			
Examiner Signature	/Kimberly Chong/	Date Considered	07/23/2009
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			
<small> <sup>1</sup> See Kind Codes of USPTO Patent Documents at <a href="http://www.USPTO.GOV">www.USPTO.GOV</a> or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.         </small>			



**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10589449
Filing Date	2007-04-27
First Named Inventor	Thomas Tuschl et al.
Art Unit	1635
Examiner Name	N/A
Attorney Docket Number	1119-10 CON/PCT/US

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

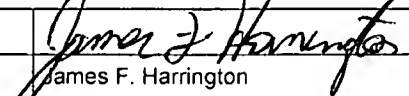
☐ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature		Date (YYYY-MM-DD)	2008-10-27
Name/Print	James F. Harrington	Registration Number	44741

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.